

Patent Claims

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1. A radio transceiver, in particular mobile telephone (1; 1'; 1'') having a transmitter output stage (3), a receiver part (9), a transmission/reception antenna (7) which is jointly assigned to the transmitter output stage and the receiver part, a transmission band-transmitting filter (5) which is connected between the output of the transmitter output stage and an antenna feedpoint (7a), and a reception band-transmitting filter (11) which is connected between the antenna feedpoint and the input of the receiver part, characterized by the compensation element (13) which is connected between the output of the transmitter output stage and the input of the receiver part and has the purpose of compensating crosstalk from a transmission signal element onto the receiver part.
2. The radio transceiver as claimed in claim 1, characterized in that the compensation element (13) is connected in parallel with the transmission band-transmitting filter (5) and with the reception band-transmitting filter (11) to the input of a reception pre-amplifier (9) or reception mixer of the receiver part.
3. The radio transceiver as claimed in claim 1 or 2, characterized in that the compensation element (13) has means for variably setting the phase and amplitude of the output signal.
4. The radio transceiver as claimed in one of the preceding claims, characterized in that the compensation element (13) is permanently tuned to at least one predetermined phase and amplitudinal response.

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5. The radio transceiver as claimed in one of claims 1 to 3 characterized in that a compensation control unit (15) for adaptively setting the compensation characteristics, in particular the phase and amplitude of the output signal as a function of the input voltage or input power at the input of the receiver part (9), is assigned to the compensation element (13).
 6. The radio transceiver as claimed in claim 5, characterized by a voltage measuring device (17; 19; 21) which is connected to the compensation control device (15), for measuring the input voltage of the receiver part (9).
 7. The radio transceiver as claimed in claim 6, characterized in that the voltage measuring device (21) has means (21.1) for the IF conversion of the input signal of the receiver part (9), a bandpass filter (21.2) which is connected downstream of the latter and an AM receiver part (21.3, 21.4) which is connected to its output and whose output is used to set the compensation characteristics.
 8. The radio transceiver as claimed in claim 7, characterized in that the bandpass filter (21.2) is tuned to the reception frequency in narrowband fashion in order to achieve a high level of sensitivity.
 9. The radio transceiver as claimed in one of the preceding claims, characterized in that the compensation element (13) is integrated into an RF component of the transmitter output stage (3) and/or of the receiver part (9).
 10. The radio transceiver as claimed in one of the preceding claims, characterized in that the

compensation element (13) is embodied using highly integrated silicon technology.